



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0296; Project Identifier MCAI-2021-01064-E]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce Deutschland Ltd & Co KG (Type Certificate previously held by Rolls-Royce plc) Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD) 2021-15-01, which applies to all Rolls-Royce Deutschland Ltd & Co KG (RRD) Trent XWB-75, Trent XWB-79, Trent XWB-79B, Trent XWB-84, and Trent XWB-97 model turbofan engines. AD 2021-15-01 requires revisions to the airworthiness limitations section (ALS) of the Rolls-Royce (RR) Trent XWB time limits manual (TLM) and the operator's existing approved aircraft maintenance program (AMP). Since the FAA issued AD 2021-15-01, the manufacturer has revised the TLM life limits and updated mandatory inspection intervals of certain critical rotating parts. This proposed AD would require revisions to the ALS of the RR Trent XWB TLM and the operator's existing approved AMP, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference (IBR). The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For material that is proposed for IBR in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu. You may find this material on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0296. For the material identified in this AD that is not incorporated by reference, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, DE24 8BJ, United Kingdom; phone: +44 (0)1332 242424; fax: +44 (0)1332 249936; website: <https://www.rolls-royce.com/contact-us.aspx>.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0296; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the EASA AD, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Nicholas Paine, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238-7116; email: nicholas.j.paine@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-0296; Project Identifier MCAI-2021-01064-E” at the beginning

of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Nicholas Paine, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 2021-15-01, Amendment 39-21648 (86 FR 36487, July 12, 2021) (AD 2021-15-01), for all RRD Trent XWB-75, Trent XWB-79, Trent XWB-79B, Trent XWB-84, and Trent XWB-97 model turbofan engines. AD 2021-15-01 was prompted by the manufacturer revising the TLM to incorporate repairs to the low-pressure compressor (LPC) blades and introduce a new fan blade inspection. AD 2021-15-01 requires revisions to the ALS of the RR Trent XWB TLM and the operator’s

existing approved AMP. The agency issued AD 2021-15-01 to prevent the failure of critical rotating parts.

Actions Since AD 2021-15-01 Was Issued

Since the FAA issued AD 2021-15-10, EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2021-0217, dated September 23, 2021 (EASA AD 2021-0217), to address an unsafe condition for all RRD Trent XWB-75, Trent XWB-79, Trent XWB-79B, Trent XWB-84, and Trent XWB-97 model turbofan engines.

This proposed AD was prompted by the manufacturer revising the TLM to introduce new instructions for repairs to the LPC blades and fan blade inspections. The FAA is proposing this AD to prevent the failure of critical rotating parts. This condition, if not addressed, could result in failure of one or more engines, loss of thrust control, and loss of the airplane. See EASA AD 2021-0217 for additional background information.

FAA's Determination

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the EASA AD. The FAA is issuing this AD after determining that the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Related Service Information under 1 CFR Part 51

The FAA reviewed EASA AD 2021-0217. EASA AD 2021-0217 describes actions for the incorporation of revised life limits and updated mandatory inspection intervals of certain critical rotating parts into the ALS of the RR Trent XWB TLM, as applicable to each engine model, and the operator's existing approved AMP. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

Other Related Service Information

The FAA reviewed Rolls-Royce Airworthiness Limitations (Mandatory parts lives), TRENTXWB-A-05-10-01-00A01-030A-D, Revision 016, dated May 1, 2021, of

the Rolls-Royce Trent XWB TLM TRENTXWB-K0680-TIME0-01; Rolls-Royce Airworthiness Limitations (Mandatory Parts Lives), TRENTXWB-B-05-10-01-00A01-030A-D, Revision 003, dated April 19, 2021, of the Rolls-Royce Trent XWB TLM TRENTXWB-K0680-TIME0-01; Rolls-Royce Airworthiness Limitations (Mandatory inspections), TRENTXWB-A-05-20-01-00A01-030A-D, Revision 015, dated May 1, 2021, of the Rolls-Royce Trent XWB TLM TRENTXWB-K0680-TIME0-01; and Rolls-Royce Airworthiness Limitations (Mandatory inspections), TRENTXWB-B-05-20-01-00A01-030A-D, Revision 008, dated April 19, 2021, of the Rolls-Royce Trent XWB TLM TRENTXWB-K0680-TIME0-01. These sections of the TLM specify inspection intervals and life limits, differentiated by engine model, for critical rotating parts.

Proposed AD Requirements in this NPRM

This proposed AD would require accomplishing the actions specified in EASA AD 2021-0217, described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this proposed AD.

Explanation of Required Compliance Information

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has since coordinated with other manufacturers and CAAs to use this process. As a result, the FAA proposes to incorporate by reference EASA AD 2021-0217 in the FAA final rule. Service information required by the EASA AD for compliance will be available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0296 after the FAA final rule is published.

Differences Between this Proposed AD and the EASA AD

Definitions

Where EASA AD 2021-0217 defines the AMP as the approved Aircraft Maintenance Programme on the basis of which the operator or the owner ensures the continuing airworthiness of each operated engine, this proposed AD defines the AMP as

the Aircraft Maintenance Program on the basis of which the operator or the owner ensures the continuing airworthiness of each operated airplane.

Compliance

Where EASA AD 2021-0217 requires revising the approved AMP within 12 months after the effective date of EASA AD 2021-0217, this proposed AD requires revising the approved AMP and ALS within 120 days after the effective date of this AD.

Mandatory Inspections

This proposed AD does not require compliance with paragraph (1), Mandatory Inspections and Replacement of Life Limited Parts, of EASA AD 2021-0217.

Corrective Action(s)

This proposed AD does not require compliance with paragraph (2), Corrective Action(s), of EASA AD 2021-0217.

Credit

This proposed AD does not require compliance with paragraph (4), Credit, of EASA AD 2021-0217.

Recording AD Compliance

This proposed AD does not require compliance with paragraph (5), Recording AD Compliance, of EASA AD 2021-0217.

Remarks

This proposed AD does not require compliance with the “Remarks” section of EASA AD 2021-0217.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 30 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

Estimated costs

Action	Labor Cost	Parts Cost	Cost per product	Cost on U.S. operators
Revise the ALS of the RR Trent XWB TLM and the	1 work-hour x \$85 per hour = \$85	\$0	\$85	\$2,550

operator's existing approved AMP				
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Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive 2021-15-01, Amendment 39-21648 (86 FR 36487, July 12, 2021); and

b. Adding the following new airworthiness directive:

Rolls-Royce Deutschland Ltd & Co KG (Type Certificate previously held by Rolls-Royce plc): Docket No. FAA-2022-0296; Project Identifier MCAI-2021-01064-E.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2021-15-01, Amendment 39-21648 (86 FR 36487, July 12, 2021).

(c) Applicability

This AD applies to Rolls-Royce Deutschland Ltd & Co KG Trent XWB-75, Trent XWB-79, Trent XWB-79B, Trent XWB-84, and Trent XWB-97 model turbofan engines.

(d) Subject

Joint Aircraft System Component (JASC) Code 7200, Engine Turbine/Turboprop.

(e) Unsafe Condition

This AD was prompted by the manufacturer revising the time limits manual (TLM) to incorporate revised life limits and updated mandatory inspection intervals of certain critical rotating parts. The FAA is issuing this AD to prevent the failure of critical rotating parts. The unsafe condition, if not addressed, could result in failure of one or more engines, loss of thrust control, and loss of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Except as specified in paragraph (h) of this AD: Perform all required actions within the compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2021-0217.

(h) Exceptions to EASA AD 2021-0217

(1) Where EASA AD 2021-0217 defines the AMP as the approved Aircraft Maintenance Programme on the basis of which the operator or the owner ensures the continuing airworthiness of each operated engine, this AD defines the AMP as the Aircraft Maintenance Program on the basis of which the operator or the owner ensures the continuing airworthiness of each operated airplane.

(2) Where EASA AD 2021-0217 requires revising the approved aircraft maintenance program (AMP) within 12 months after the effective date of EASA AD 2021-0217, this AD requires revising the approved AMP and airworthiness limitations section (ALS) within 120 days after the effective date of this AD.

(3) This AD does not require compliance with paragraph (1), Mandatory Inspections and Replacement of Life Limited Parts, of EASA AD 2021-0217.

(4) This AD does not require compliance with paragraph (2), Corrective Action(s), of EASA AD 2021-0217.

(5) This AD does not require compliance with paragraph (4), Credit, of EASA AD 2021-0217.

(6) This AD does not require compliance with paragraph (5), Recording AD Compliance, of EASA AD 2021-0217.

(7) This AD does not require compliance with the “Remarks” section of EASA AD 2021-0217.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, ECO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the

certification office, send it to the attention of the person identified in paragraph (j)(2) of this AD and email to: ANE-AD-AMOC @faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

(1) For more information about EASA AD 2021-0217, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu. You may find this material on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110. This material may be found in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0296.

(2) For more information about this AD, contact Nicholas Paine, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238-7116; email: nicholas.j.paine@faa.gov.

(3) For service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, DE24 8BJ, United Kingdom; phone: +44 (0)1332 242424; fax: +44 (0)1332 249936; website: <https://www.rolls-royce.com/contact-us.aspx>. You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110.

Issued on March 22, 2022.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2022-06409 Filed: 3/25/2022 8:45 am; Publication Date: 3/28/2022]